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(56) Documents Cited

GB 2307762 A GB 2273387 A GB 2184588 A

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(54) Items labelled with barcodes

(57) For use by blind persons, a barcoded item such as a barcoded label has a tactile locator 14, 16 adjacent the barcode 12 to enable the position and preferably also orientation of the barcode to be determined by touch. The locator may be in the form of pips, holes, lines, vees, arrows or combinations thereof and may form an integral part of the packaging to which the barcode is applied. In the use with paper items such as cheques, the locators may be embossed thereon. The label may also carry visual information, to assist a sighted person.

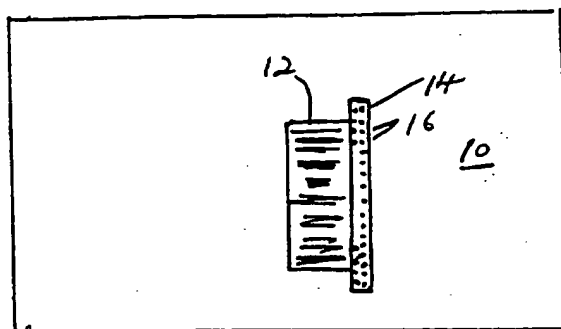
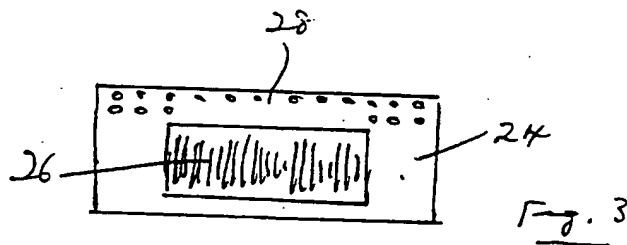
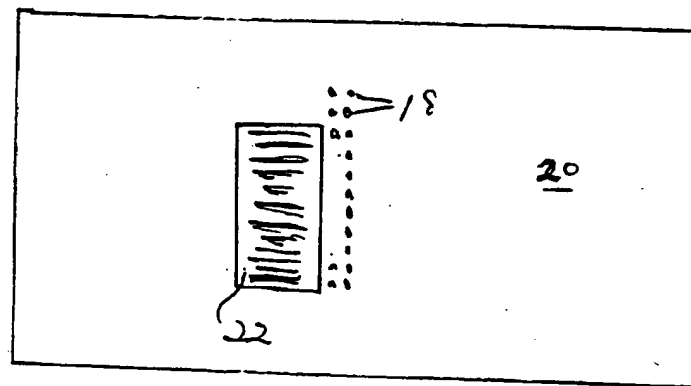
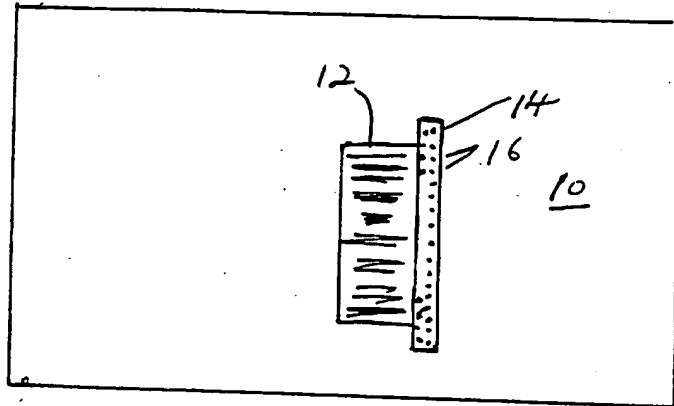


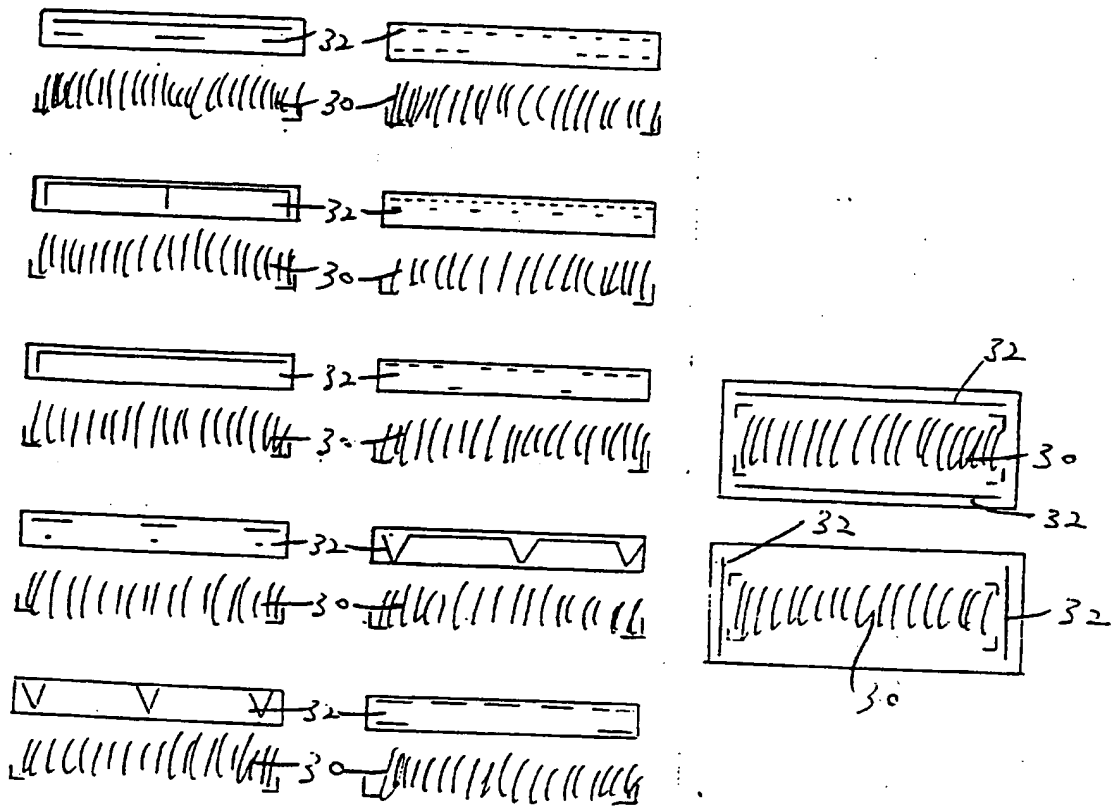
Fig. 1

GB 2 315 357 A

1/2



2/2

Fig. 4

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-1-

Items Labelled with Barcodes

This invention relates to items labelled with barcodes, hereinafter referred to as barcoded items.

Barcodes marked on items such as products in shops could in principle be made use of to inform at least partially blind people of at least the nature of the item and possibly also other relevant descriptive information such as colour, amount, price, use-by date, etc. However, even if the blind person is equipped with a barcode scanning device and speech synthesiser, such as that described in copending Patent Application No. , the user is still presented with the problem of finding the barcode.

According to the invention, a barcoded item has a tactile locator adjacent the barcode to enable the position of the barcode to be uniquely determined by touch.

There exist a number of ways in which the locator may be provided adjacent the barcode, according to circumstances.

In one arrangement, a paper or like strip may be applied to the item along one edge of the barcode, which may be a longitudinal edge or an end edge, preferably the former. A longitudinal strip may project beyond the barcode at either end and preferably both of the barcode, to provide a tactile reference which can be maintained during scanning without obscuring the barcode. The strip may have raised portions, in the form of pips, holes, lines, vees, arrows, or a combination thereof, to facilitate location by touch, and to indicate the orientation of the barcode. In this connection, it will be appreciated that it is important, for reliable reading, for the barcode to be scanned along its longitudinal axis.

-2-

The strip will be fixed to the item to maintain its position relative to the barcode, as by means of adhesive, for example in the case of a self-adhesive strip, or by stitching or any other convenient means.

The tactile locators or indicators are most preferably arranged, by virtue of asymmetry or otherwise, to indicate both a unique location and a unique orientation for the barcode.

In an alternative arrangement, the tactile locator, in the form of a strip of pips, holes, lines, vees, arrows etc. or combination thereof, may form an integral part of the packaging to which the barcode is applied.

Yet again, the barcode may be applied to a label applied to the item, the locator, for example of the form described above, being integrated with the label.

The invention is not limited to use with solid items such as shop products. For example, barcoded adhesive labels may be tactilely enhanced, in the above-described manner, for application to correspondence, especially bills from service companies, so that when scanned the barcode informs the blind person of the name of the authority issuing the bill and the amount charged. Cheques, statements of account, etc., may also be so marked with barcoded labels enhanced with barcode locators. Such papers preferably bear the barcoded labels in a standard format for ease of exact location. Instead of using labels, the paper item bearing one or more barcodes may have tactile locators or indicators pre-embossed thereon.

Medicines issued by pharmacists and doctors may also be marked with tactilely enhanced barcoded labels, in order when scanned to inform a blind person of the nature of the medicine and the dosage to be taken.

In the case of clothing or other fabrics, iron-on barcoded labels may be applied,

-3-

wherein the location is effected simply by the smooth finish of the label, possibly enhanced by a line of coarse stitching along one side or end of the label if appropriate. Standard positioning of the label, for example on the underside of the left collar in the case of many items of clothing, assists speed of location of the barcoded label.

Specially made tactilely enhanced barcoded labels may also be manufactured for use by a blind person, equipped with a barcode scanner and speech synthesiser, in the home, in order to enable the user to distinguish many kinds of otherwise confusable items, including food products for example. The barcode in such cases may be very simple, for example simply to identify the item, e.g. a tea container and a coffee container.

Tactilely enhanced barcoded clip closures may also be provided for sealing opened food packaging, such as freezer bags or cereal bags.

Tactilely enhanced barcoded sock clips, tie hangers, key tabs, playing cards, cassette labels, tie-on labels and the like may also be provided, to enable a blind person to identify one pair of socks from another or one tie from another, etc. In general, tactilely enhanced pre-barcoded labels will be purchased by the blind person for application to appropriate items in the home to enable the blind person to identify the item thereafter.

The foregoing represent just some of the instances where a tactilely enhanced barcoded label is able to assist a blind person equipped with a barcode scanner and speech synthesiser.

Labels and other items may, of course, also bear visual information, possibly to enable a sighted person to assist the blind person, or possibly to inform a sighted person that the item is of private or confidential nature.

-4-

The accompanying diagrammatic drawings show some examples of barcoded items equipped with tactile locators. In these drawings:-

Figures 1 to 3 show three possible arrangements; and

Figure 4 shows a number of possible arrangements of tactile locator suitable for use in any of the items of Figures 1 to 3, some being more preferred than others.

In Figure 1, there is shown a product label 10 marked with a barcode 12. A tactile locator, in the form of a paper strip 14 with raised pips 16, has been applied along one longitudinal edge of the barcode. Two rows of pips are provided, one interrupted, in order by asymmetry to indicate to which side of the indicator the barcode lies, thereby to define the position and orientation of the barcode uniquely. In Figure 1, the asymmetry is in one coordinate direction only; however, it may be made bi-axial.

The arrangement of Figure 2 is similar, but the raised pips 18 are integrally formed in the product label 20 along one longitudinal edge of the barcode 22.

Tactile product marking of the kind shown in Figures 1 and 2 can enable a blind person to identify the nature of a product in a shop.

In Figure 3, there is shown a label 24 for an item such as a food product or an item of correspondence, preferably a self-adhesive label. The label 24 carries a barcode 26 and as an integral formation has a barcode locator 28 in the form of an asymmetrical arrangement of two rows of raised pips along one longitudinal edge of the barcode. Pre-embossed labels of this kind may be applied to items in the home to facilitate identification by a blind person equipped with a barcode scanner and speech synthesiser.

-5-

Figure 4 shows a number of possible arrangements of locator usable in place of the raised pips shown in Figures 1 to 3. In all cases, the barcode is referenced 30 and the locator 32. The arrangements in the left-hand and centre columns are all asymmetrical and applied along only one edge of the barcode, whilst the arrangements shown in the right-hand column are symmetrical with respect to the barcode but still define its position and orientation uniquely. The arrangements shown in the centre column are the more preferred.

-6-

Claims

1. A barcoded item having a tactile locator adjacent the barcode to enable the position of the barcode to be uniquely determined by touch.
2. An item according to claim 1, wherein a paper or like strip is applied to the item along one edge of the barcode.
3. An item according to claim 2, wherein the edge is a longitudinal edge.
4. An item according to claim 3, wherein the longitudinal strip projects beyond the barcode at either or both ends of the barcode, to provide a tactile reference maintainable during scanning without obscuring the barcode.
5. An item according to any of claims 2 to 4, wherein the strip has raised portions, in the form of pips, holes, lines, vees, arrows, or a combination thereof, to facilitate location by touch, and to indicate the orientation of the barcode.
6. An item according to any of claims 2 to 5, wherein the strip will be fixed to the item to maintain its position relative to the barcode.
7. An item according to claim 6, wherein the strip is fixed to the item by means of adhesive, for example in the case of a self-adhesive strip, or by stitching.
8. An item according to any of claims 1 to 7, wherein the tactile locator is arranged, by virtue of asymmetry or otherwise, to indicate both a unique location and a unique orientation for the barcode.
9. An item according to claim 1, wherein the tactile locator, in the form of a

-7-

strip of pips, holes, lines, vees, arrows etc. or combination thereof, forms an integral part of the packaging to which the barcode is applied.

10. An item according to claim 1, wherein the barcode is applied to a label applied or to be applied to an object, the locator being integrated with the label.

11. Barcoded labels, tactilely enhanced as claimed in claim 1, for application to correspondence, cheques, statements of account etc.

12. Labels according to claim 11, wherein the correspondence, cheques, etc. bear the barcoded labels in a standard format for ease of exact location.

13. A paper item bearing one or more barcodes and having tactile locators or indicators pre-embossed thereon in association with the or each barcode, as claimed in claim 1.

14. Medicines issued by pharmacists and doctors marked with tactilely enhanced barcoded labels in accordance with claim 1, in order when scanned to inform a blind person of the nature of the medicine and the dosage to be taken.

15. Clothing or other fabrics having iron-on barcoded labels applied thereto as claimed in claim 1.

16. Clothing or fabrics according to claim 15, wherein tactile location is enabled by the smooth finish of the label.

17. Clothing or fabrics as claimed in claim 16, wherein tactile location is enhanced by a line of coarse stitching along one side or end of the label.

18. Clothing according to claim 15, having standard positioning of the label on

-8-

the underside of the left collar.

19. Tactilely enhanced barcoded labels for use by a blind person, equipped with a barcode scanner and speech synthesiser, for application to items in the home, in order to enable the user to distinguish many kinds of otherwise confusable items, including food products.
20. Labels according to claim 18, wherein the barcode enables the user to identify the items, such as a tea container and a coffee container.
21. Barcoded clip closures, tactilely enhanced in accordance with claim 1, for sealing opened food packaging, such as freezer bags or cereal bags.
22. Barcoded sock clips, tie hangers, key tabs, playing cards, cassette labels, tie-on labels and the like, tactilely enhanced in accordance with claim 1, to enable a blind person to identify one pair of socks from another or one tie from another, etc.
23. Pre-barcoded labels, tactilely enhanced in accordance with claim 1, for purchase by a blind person for application to appropriate items in the home to enable the blind person to identify the item thereafter.
24. Labels and other items according to any of claims 10 to 23, which also bear visual information, for example to enable a sighted person to assist the blind person, or to inform a sighted person that the item is of private or confidential nature.
25. A barcoded item substantially as hereinbefore described with reference to the accompanying drawings.



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9

Application No: GB 9614882.0
Claims searched: 1 - 25

Examiner: Roger Casling
Date of search: 8 October 1997

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.O): B8F(FBG,FBX),G4H(HJ),G5C(CEP,CET),G5G(G6)

Int Cl (Ed.6): B42D,G09B,G09F

Other: Online:WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2307762 A (STYLIOS) see whole document	19 at least
X	GB 2273387 A (KNUDSEN) see page 2 line 28 et seq	1 and 19 at least
X	GB 2184588 A (BAIL) see page 1 line 106 - 110	1 and 19 at least

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.